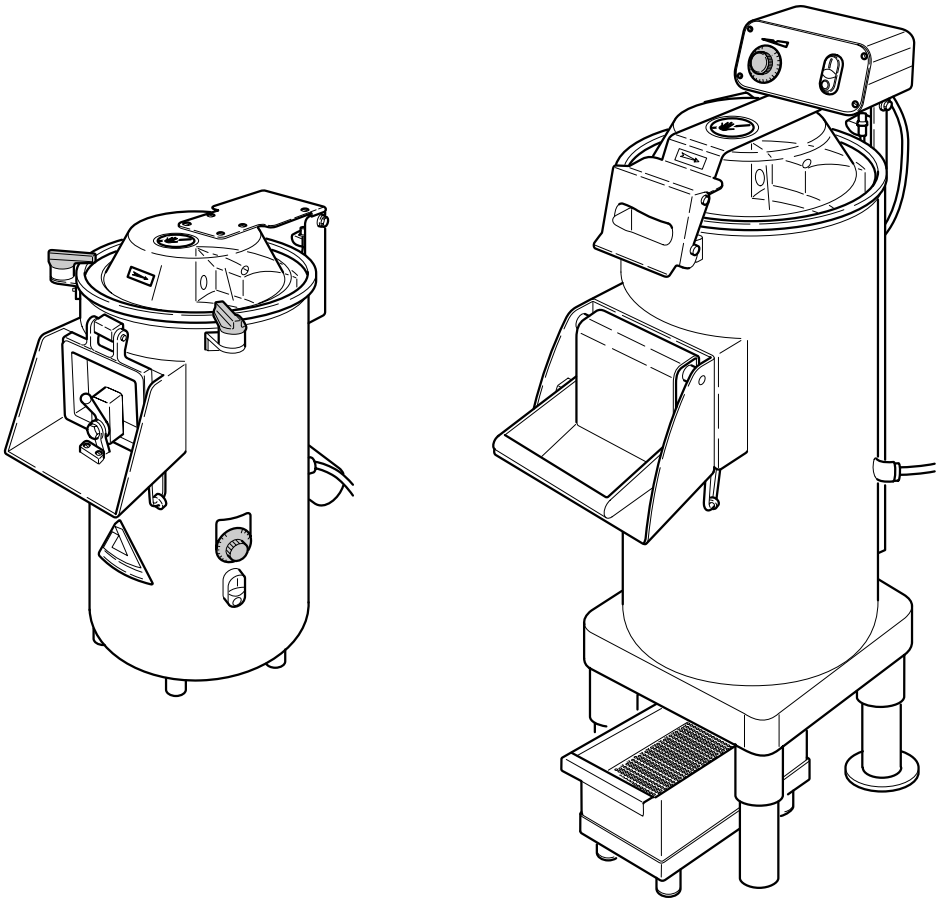
metos

POTATO PEELERS

PL,PV,PC

User manual



rev 2.0

Dear Customer,

Congratulations on deciding to choose a Metos appliance for your kitchen activities. You made an excellent choice. We will do our best to make you a satisfied Metos customer like thousands of customers we have around the world.

Please read this manual carefully. You will learn correct, safe and efficient working methods in order to get the best possible benefit from the appliance. The instructions and hints in this manual will give you a quick and easy start, and you will soon note how nice it is to use the Metos equipment.

All rights are reserved for technical changes.

You will find the main technical data on the rating plate fixed to the equipment. When you need service or technical help, please let us know the serial number shown on the rating plate. This will make it easier to provide you with correct service.

For your convenience, space is provided below for you to record your local Metos service contact information.

METOS TEAM

Metos service phone number:

Contact person:

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1 GENERAL

Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the appliance.

Keep this manual in a safe place for eventual use by other operators of the appliance.

The installation of this appliance must be carried out in accordance with the manufacturer's instructions and following local regulations. The connection of the appliance to the electric and water supply must be carried out by qualified persons only.

Persons using this appliance should be specifically trained in its operation. Switch off the appliance in the case of failure or malfunction. The periodical function checks requested in the manual must be carried out according to the instructions. Have the appliance serviced by a technically qualified person authorized by the manufacturer and using original spare parts.

Not complying with the above may put the safety of the appliance in danger.

1.2 Symbols used in the manual

This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.

This symbol informs about the right way to perform in order to prevent bad results, appliance damage or hazardous situations.

This symbol informs about recommendations and hints that help to get the best performance out of the appliance.

1.3 Symbols used on the appliance

This symbol on a part informs about electrical terminals behind the part. The removal of the part must be carried out by qualified persons only.

This symbol is applied near zones where high temperature may occur.

1.4 Checking the relationship of the appliance and the manual

The rating plate of the appliance indicates the serial number of the appliance. If the manuals are missing, it is possible to order new ones from the manufacturer or the local representative. When ordering new manuals it is essential to quote the serial number shown on the rating plate.

2 SAFETY

2.1 General warnings

Before installing the machine make sure that the used area is compatible with the dimensions and the weight of the machine.

For the installation or removal of any machine part, the used lifting and handling devices should be suitable to the weight and geometrical characteristics of the part to be lifted or handled.

Only skilled and authorized personnel is allowed to start adjust or repair the machine.

Mechanical parts and electrical components inside the machine are protected by totally enclosed panels fastened with screws.

Before cleaning and/or maintaining the machine and before removing any type of protection, make sure that the general switch is on “OFF” position (O), in order to turn off the power while the operator is working.

The power supply system of the purchaser should be provided with an automatic release device above the machine main switch and with a suitable earthling system complying with the accident prevention regulations.

In case of repairs to be done on the main switch or in themain switch area, turn off the power of the electrical line.

Make sure that all safety devices (barriers, protections, carter, micro-switches, etc.) have not been tampered and are perfectly working.

Do not remove the safety devices.

In order to avoid personal risks, only suitable tools should be used, in accordance with the local safety regulations.

Do not tamper the electric and pneumatic plant or any other mechanism for any reason.

Do not leave the machine unattended while it is working.

Wear safety clothing only, approved by the law in force.

In case of works to be done in a position that cannot be reached from the ground, use safe ladders or lifting devices only, in conformity with the local safety regulations.

In case of repairs to be done near or under the machine, make sure that there are no machine members that can start working and/or instable parts placed on the machine or near themachine.

Do not use your hands instead of suitable tools to work on the machine.

Do not use your hands or other tools to stop any moving parts.

Do not use matches, lighters or flames near the machine.

YOUR BEST ATTENTION SHOULD BE PAID TO THE WARNING PLATES LOCATED ON THE MACHINE BEFORE DOING ANY WORK ON THE MACHINE OR NEAR THE MACHINE.

The user is obliged to keep all the warning plates in legible conditions and, if required, to change their position in order to make them fully visible to the operator.

Stop the machine before doing any repair work.

In case of malfunction of the machine or damages to its components, get in touch with the maintenance engineer and do not try to repair the machine.

It is absolutely prohibited to use the machine for other purposes different from those expressly indicated and documented.

The machine should be used always when and how provided by the good technique, in compliance with the EEC machine directive 89/392 and in compliance with the regulations concerning health and safety of the workers, as indicated by the local regulations or according to the EEC directive 89/ 391.

The manufacturer declines all responsibility for any injury or damage to persons or things arising from inobservance of the safety regulations and the instructions contained in this manual.

The machine is not suitable to be used in a place with explosion risk.

FOR ANY ELECTRIC/ELECTRONIC OR MECHANIC TAMPERING OF THE MACHINE BY THE USER OR IN CASE OF A NEGLIGENT USE OF THE MACHINE, THE MANUFACTURER IS RELIEVED FROM ANY RESPONSIBILITY AND THE USER WILL BE THE ONLY ONE RESPONSIBLE AGAINST THE COMPETENT AUTHORITIES FOR THE ACCIDENT PREVENTION.

In case of fire turn off the power by disconnecting the main power switch.Put out the fire by means of suitable fire extinguishers.

2.2 Safety plates

The warning plates with explanatory symbols are to be found in all those areas that may be dangerous for operators or engineers.

Anyone preparing to work on the machine should protect the warning plates with the safety instructions. The non compliance with the instructions mentioned on the safety plates will release the manufacturer from all responsibilities for damages or injuries to persons or properties that may arise.

3.Functional description

3.1 IDENTIFICATION OF THE COMPONENTS

1. Control panel
2. Cover
3. Cover opening handle (NOT in PL6/PC3)
4. Cover opening levers (PL6/PC3)
5. Food unloading door
6. Base (NOT in PL6/PC3)
7. Adjustable feet (NOT in PL6/PC3)
8. Filter (optional)
9. Water supply connection
10. Data plate
11. Electric cable

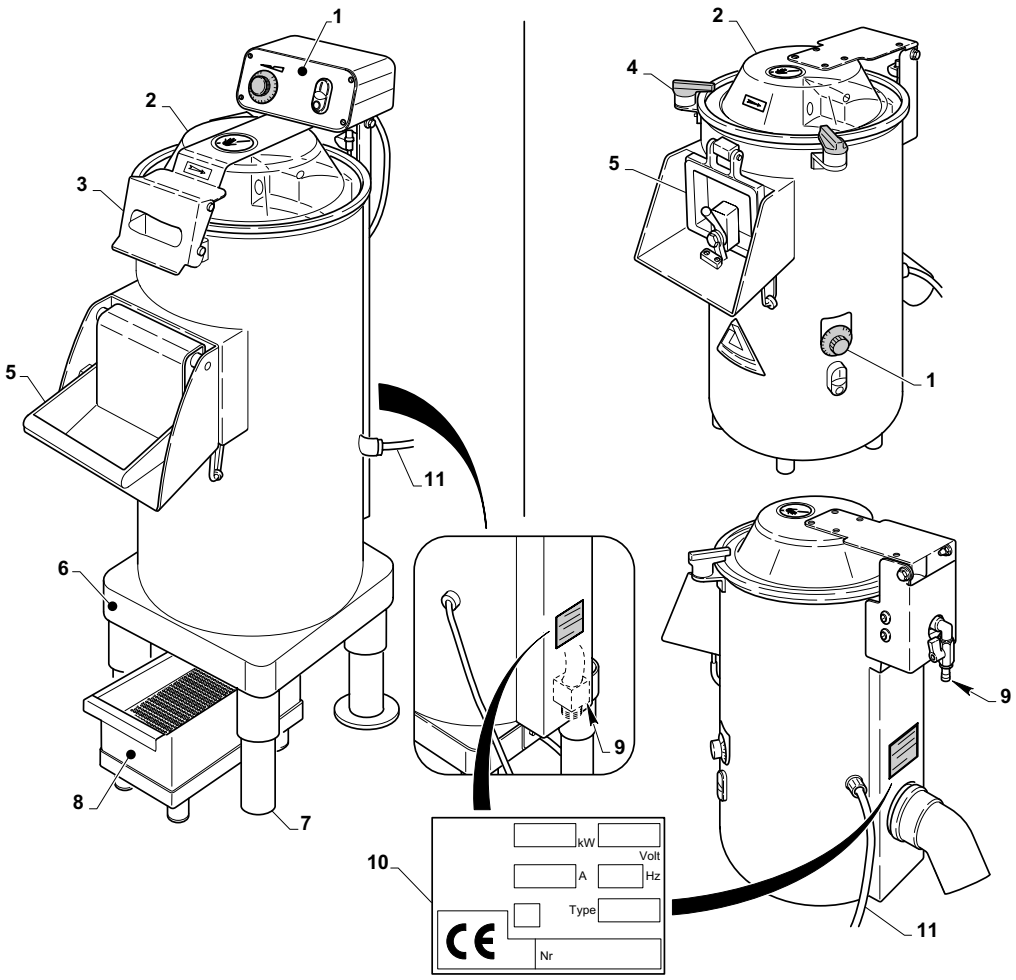
3.2 IDENTIFICATION OF THE MACHINE

The serial number and identification data of the machine are punched on a plate (10) fastened to the machine base.

IMPORTANT
The machine serial number should be always mentioned in your request of technical assistance or in your spare part orders.

All models

PL6/PC3 only



3.3 APPLICATIONS, INTENDED USE

The PL / PV and PC versions are professional machines for modern cooking where 30 to 700 place settings are needed.

PL version of machine has been designed to peel potatoes of all kinds, carrots and onions.

PV version of machine is a multipurpose one, it has been designed to peel potatoes of all kinds, carrots and onions; to clean mussels. Special attachmentscan be added, to brush fruits and vegetables (pears, apples, kiwis), to centrifuge vegetables (15-23-32 versions only).

PC version of machine has been designed to clean mussels.

Its versions can only be used for the above applications; any other use shall relieve the manufacturer from all and any liability for injuries or damages and shall result in the forfeiture of any warranty.

3.4 Safety device

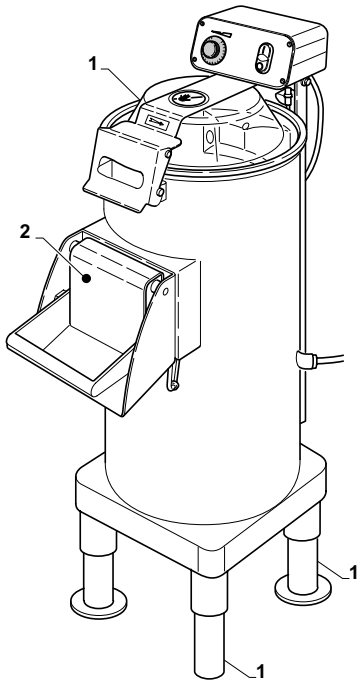
The machine is provided with following safety systems:

1) All danger areas are protected by safety guards with screws.

2) The machine is equipped with two sensors that stop operation in case the upper lid (1) or the food unloading door (2) are opened.

3) Low voltage (24V) electric controls.

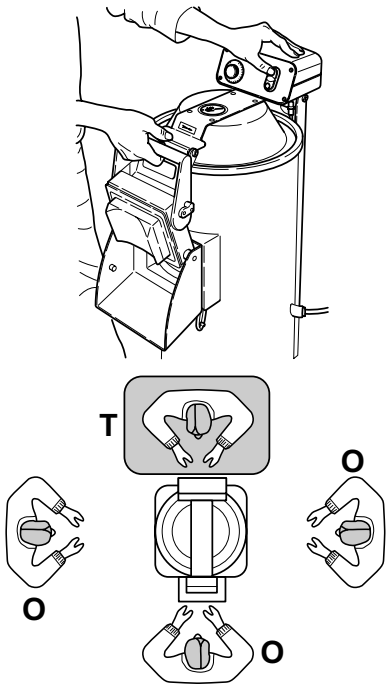
4) Electrical system featuring IPX5 class protection.



3.5 Operator areas

The operator, during loading and unloading of food, can stay either in front or beside the machine. For a complete description of allowed working positions, check positions (O).

For maintenance works the engineer is allowed to stay on the back of the machine (T).



3.6 CONTROL PANEL AND PILOT LIGHTS

The machine is provided with following controls:

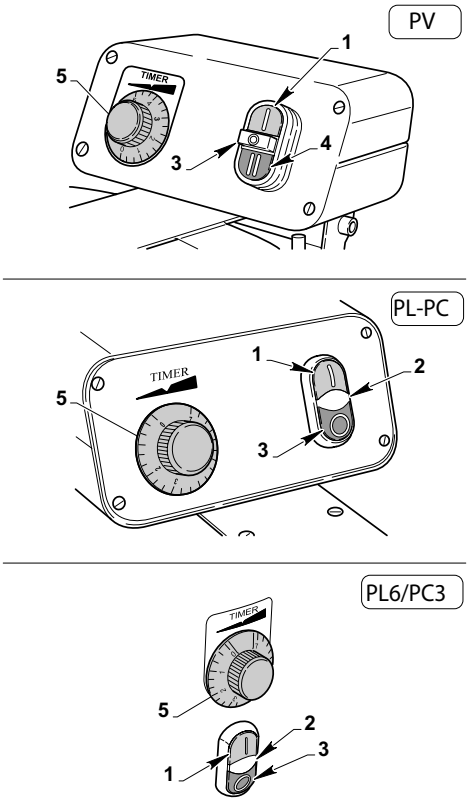
1. Green start button " I "
When pressed, it starts the machine. [for PL and PC models: the light (2) will switch on].
In PV models the machine will start at speed 1.

2. Working light (models PL and PC)
When push button (1) is pressed, it switches on; it switches off when push button (3) is pressed.

3. Red stop push button " 0 "
Pushing it stops the machine; the button can also be used in cases of EMERGENCY.

4. Green 2nd speed start button " II "
(PV model only)
Pushing it will start the machine at speed 2.

5. Timer
Rotating the timer will set the working time, as soon as the preset time has expired the machine will stop.



4.Operation instructions

4.1 - FUNCTIONING

4.1.1 Food preparation

For potatoes carrots, fruits and vegetables, mussels and seafood no special preparation is required, whereas onions require the carrying out of the following operations.

Onions preparation:

Before introducing the onions in the machine it is necessary to remove the upper and lower parts as well as the dry leaves around the onion in order to avoid clogging of the discharge.

The maximum load of onions shall be 2/3 of the machine's operating load. After 2-3 working cycles remove the disc as described in the maintenance paragraph and check that the discharge pipe is not clogged.

4.1.2 Setting of the machine and start

Check that the machine is connected to the electric and water supply circuits.

Check that the food unloading door (6) is correctly closed.

Open the lid (7) operating the handle (8), while for model PL 6/PC3 you should move the locks (9).

Insert the disc (10) to be used for the required food processing checking that it has been correctly fastened to the engine's pin.

Insert the food to be processed, taking care not to exceed the machine's maximum load and close the lid (7).

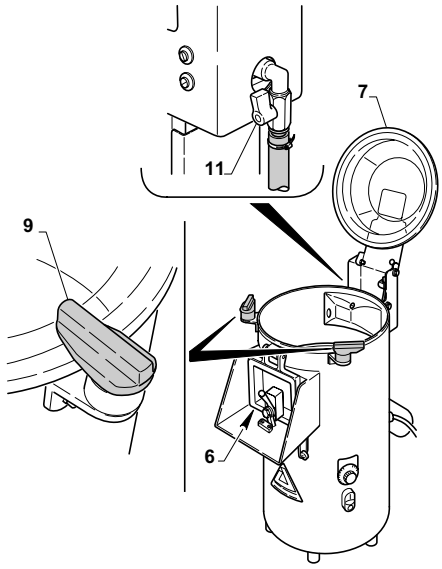
Set the processing cycle duration with the timer (5).

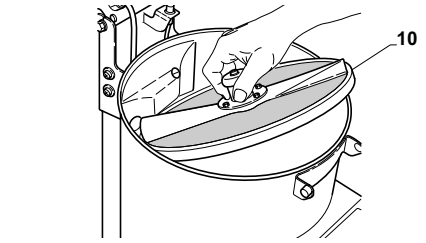
For models PL 6/PC3 open the tap (11) for water input.

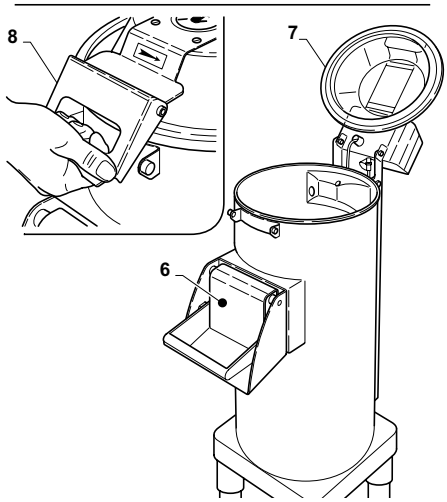
For PV models push the button for speed 1 **“ I “** or 2^ **“ II “** depending from the type of processing required, while for the PL and PC models push the button **“ I “**.

As soon as the preset time has expired the machine will stop.

For models PL 6/PC3 close the tap (11) , for the other models the water flow will stop automatically as soon as the preset time has expired.







Put a container under the food unloading door (6), open the door and at the same time push the button " " (12) until the food has been completely unloaded.

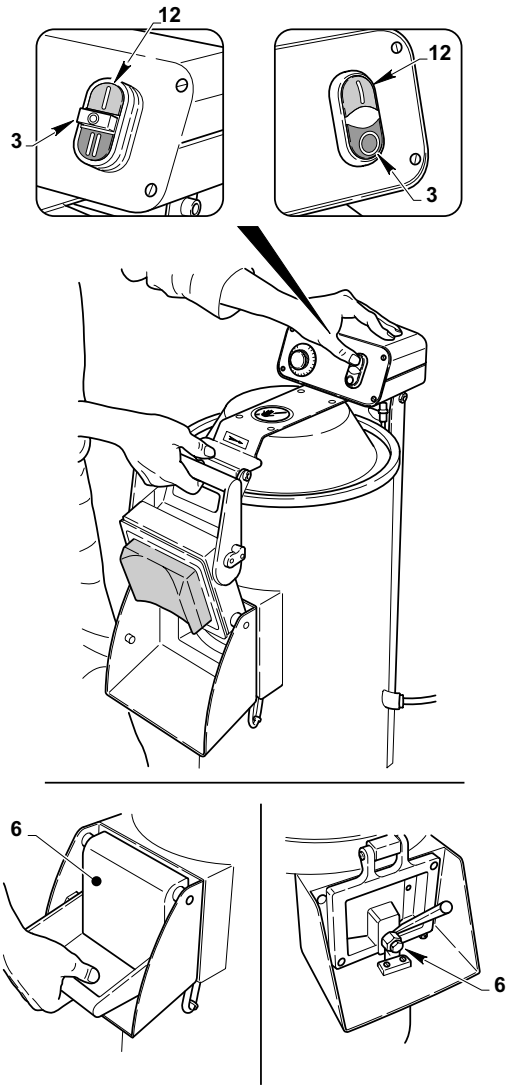
Warning for use of PV models
These models allow choice between two different speeds, choice of speed depends on the type of processing and food.

Speed " I "
It is used for mussels cleaning, vegetables centrifugation (requires use of the optional basket), cleaning of fruits (with the optional disc).
Speed " II "
It is used to clean potatoes, carrots and onions.

Controls during functioning.
If the optional filter has been installed check that it discharges water correctly and clean it from the waste after completion of some working cycles.

Machine Stop
• To stop the machine during processing push the (3) " 0 ", button, the machine will stop immediately.
• Close water supply to the machine and the tap (11) for PL6 model only.

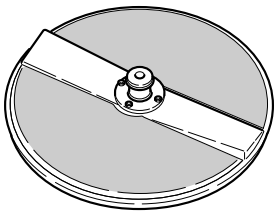
EMERGENCY stop of the machine
• In an EMERGENCY, press the button (3), the machine will clear all its functions.
• Remove the causes that created the emergency and then restart the cycle.



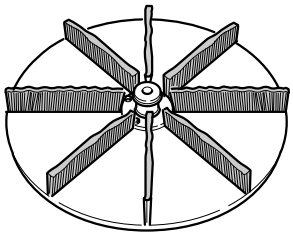
4.1.3 Optional

The following optional are available on the different models:

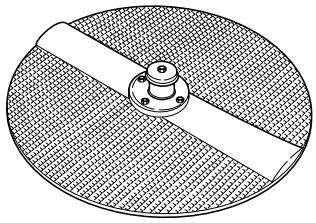
Disc for Onions



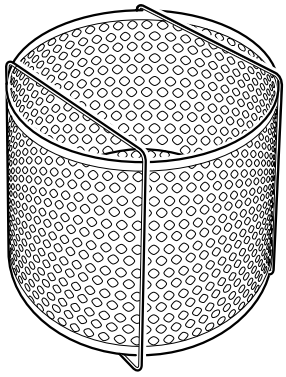
Disc for cleaning and brushing fruits and vegetables



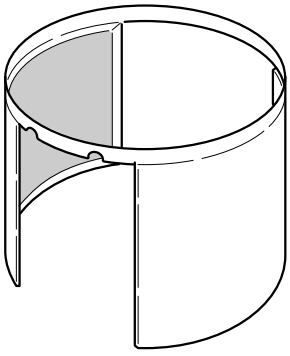
Disc for cleaning mussels and similar seafood



Centrifugation basket



Side abrasive



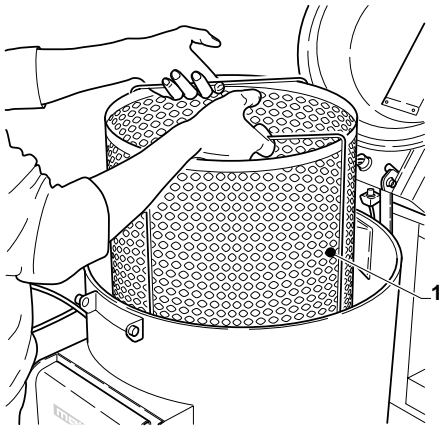
Installation of optional on the different models shall be made according to the following table:

Model	Disc for carrots and potatoes	Disc for onions	Disc for fruits and vegetables	Disc for mussels and similar seafood	Centrifugation basket	Side abrasive
PL 6	E	YES	NO	NO	NO	NO
PL 10	E	YES	NO	NO	NO	YES
PL 15	E	YES	NO	NO	NO	YES
PL 23	E	YES	NO	NO	NO	YES
PL 32	E	NO	NO	NO	NO	YES
PV 10	E	YES	YES	NO	NO	YES
PV 15	E	YES	YES	YES	YES	YES
PV 23	E	YES	YES	YES	YES	YES
PV 32	E	YES	YES	YES	YES	YES
PC 3	NO	NO	NO	E	NO	NO
PC 6	NO	NO	NO	E	NO	NO
PC 8	NO	NO	NO	E	NO	NO

E = EQUIPPED

4.1.4 INSTALLATION OF OPTIONAL ACCESSORIES

Installation of optional accessories on the different models shall be carried out with the machine switched off.

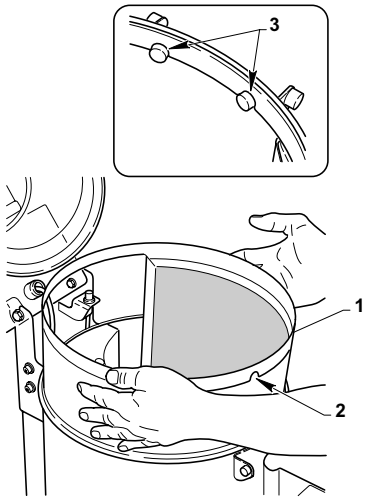


Installation of centrifugation basket

• Open the upper lid as shown in the paragraph “MACHINE STARTING”.
• Remove the peeling or cleaning disc from the machine.
• Insert the basket (1) in the machine as shown in the picture.

Installation of side abrasive

IMPORTANT
This optional accessory shall be installed together with the peeling disc and used only for peeling potatoes.



• Open the upper lid as shown in the paragraph “MACHINE STARTING”.
• Insert the side abrasive (1) as shown in the picture paying attention to insert the slots (2) obtained on the upper border with the pins (3) on the machine.

6. After use

The maintenance works should be performed when the machine is stopped and the main switch is in position " 0 " OFF.

6.1 Cleaning of the machine

Accurately clean the machine after each working cycle and whenever there is the need to change type of processing.

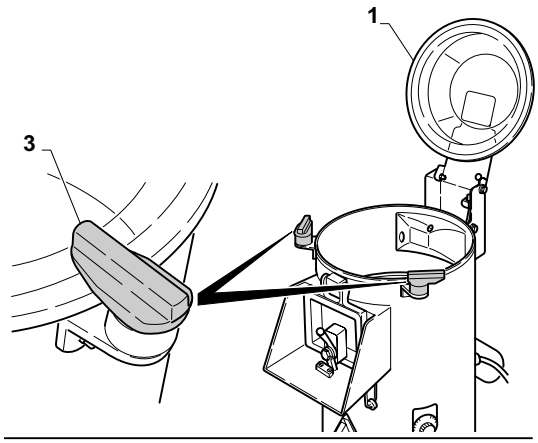
Do not use corrosive detergents or metal tools to clean the machine.

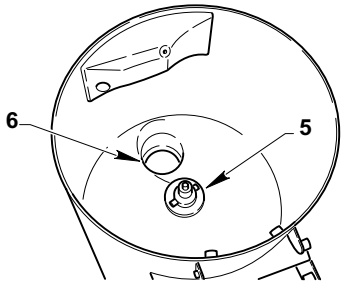
DO NOT use high-pressure water jets or extremely hot steam on the electric components (buttons, timer, and so on.)

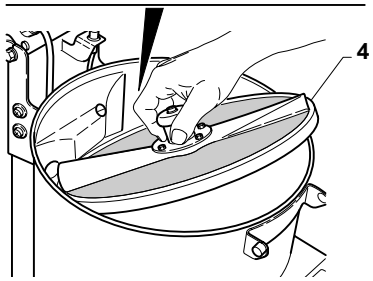
• Open the lid (1) operating the handle (2), for model PL 6 you should also move the locks (3).

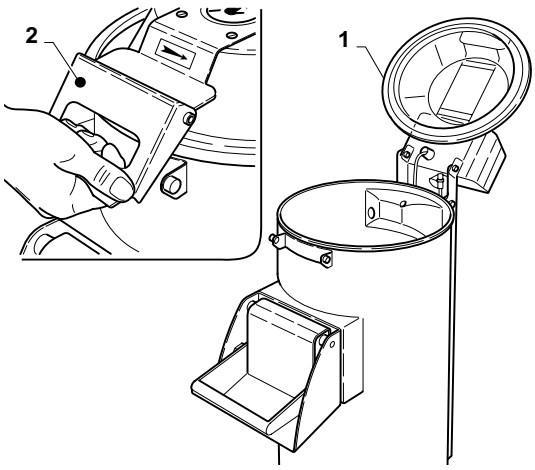
• Remove the peeling disc (4) and any optional tool installed.

• Wash the inside of the chamber (5) and the discharge (6) with a low-pressure water jet.









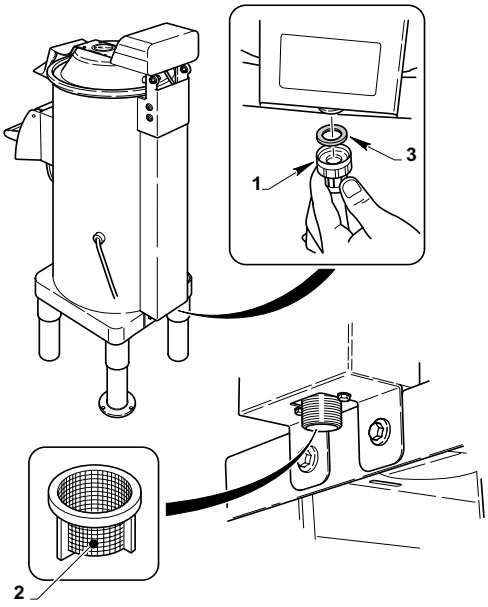
6.2 Cleaning of electro magnetic valve filter (except for Mod. PL6/PC3)

• Check that the water supply tap is correctly closed.

• Move to the back of the machine and unscrew the water supply hose (1).

• Remove the filter of the electro magnetic valve (2) using tongs and clean it with running water.

• Reassemble everything by carrying out the previous operations in reverse order, be especially careful to assemble the gasket (3) correctly.



7. Installation

7.1 Unpacking

To remove the packing from the machine proceed as follows:

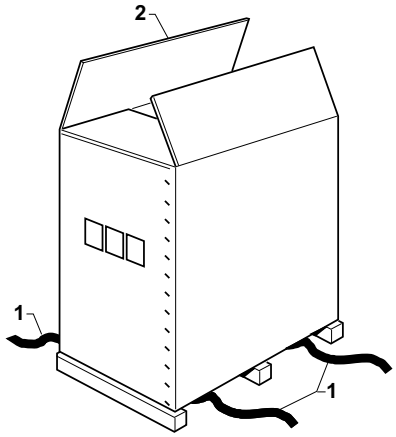
• Cut the straps (1) that tie up the carton.

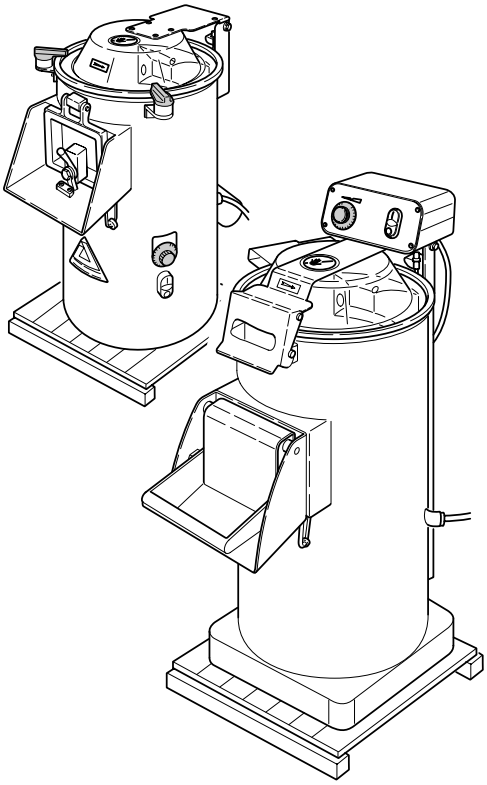
• Open the carton (2), by removing the metallic clips.

• Remove the cardboard packaging (2).

• Check if everything is complete.

• Check if the delivery is complying with the PACKING LIST.

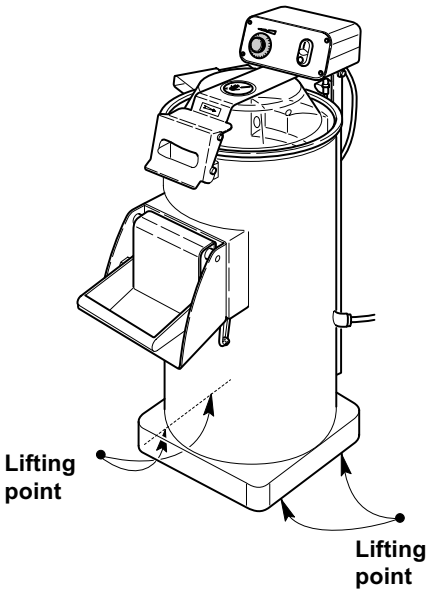




7.2 -MACHINE LIFTING

Lifting of the machine shall be carried out by two people seizing it from the base and then lifting it.

ATTENTION
Use protection gloves for lifting the machine.



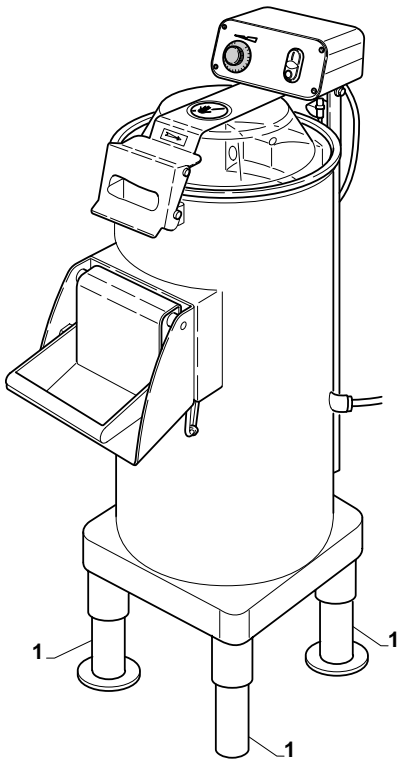
7.3 - ASSEMBLING THE FEET

For a greater ease of transportation the machines are shipped with the adjustable feet not assembled.
For correct assembly act as follows:

• Lay the machine on the ground on one side, taking care to place a piece of cardboard under the machine to avoid damaging it.

• Screw the feet (1) up until they reach the limit on the machine base.

IMPORTANT
There are two types of feet: flanged or rubber; the two types shall be mounted staggered and in a
cross-like scheme as shown in the pictures.

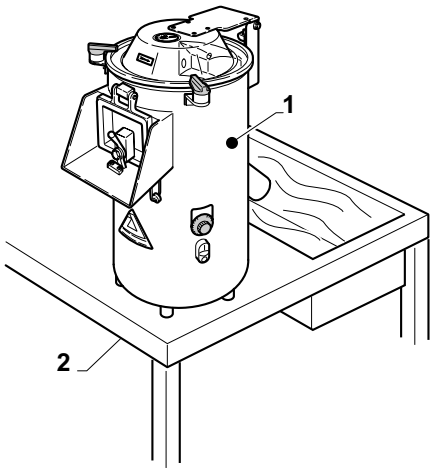


7.4 - MACHINE INSTALLATION

7.4.1 Installation on bench (PL6/PC3 only)

DANGER
Make sure that the bolster is suitable to support the loads reported in the “SPECIFICATIONS”
chapter, that it is smooth and uniform and that it is sufficiently high to grant proper use of the machine.

• Lift the machine (1) as reported in paragraph 3.1 and place it on the bolster (2).



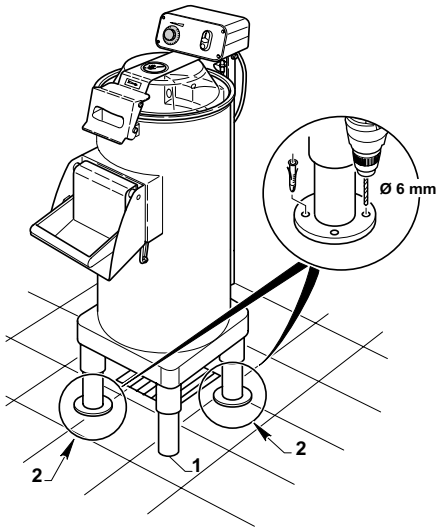
IMPORTANT
Make sure that there is a drainage well nearby in which water containing waste shall be conveyed.

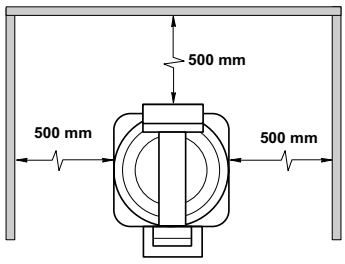
7.4.2 Installation on the floor

IMPORTANT
Make sure that there is a drainage well near or under the machine in which water containing waste shall be conveyed.

• Place the machine on the floor following thoroughly the recommendations reported in for they report the minimal distances required for the operator or the technician to carry out correctly any working or maintenance sequence.

• Adjust the feet (1)-(2) placing the machine on the level and then fixing it on the floor with the expansion screws using the flanged feet (2).





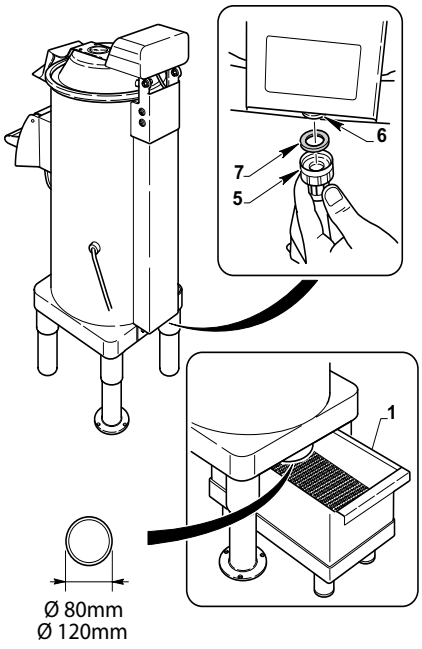
7.5 Water connections

Discharge

If the machine is placed above a drainage grid where water is conveyed using a centralised filter the discharge is free. If there is the need to connect it to a discharge pipe use the following measures:

• Models PL/PV 6 ÷ 23 and PC 3 ÷ 8 = Ø 80 mm
• Model PL/PV32 Ø = 120 mm

ATTENTION
It is forbidden to discharge waste directly in the drainage, waste water shall be conveyed through a centralised filter (1) if such a filter is not available it is possible to purchase an (optional) filter that for models PL and PV 10 - 32 and models PC 6 – 8 shall be positioned below, while for models PL 6/PC3 it must be positioned behind.



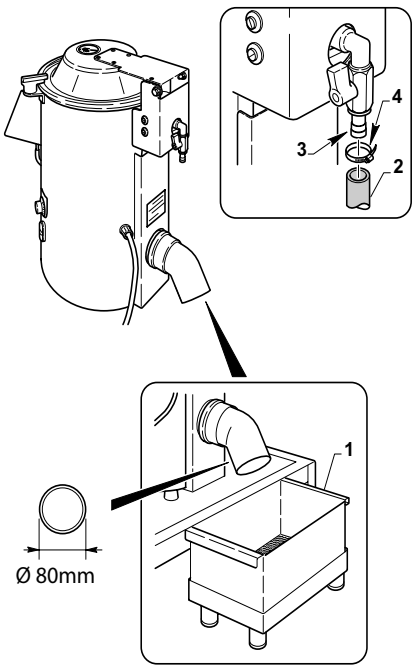
Loading

The water supply pipe that moves from the choking shutter and reaches the machine shall flow without obstructions and without blocks.

PL 6/PC3
• Connect the supply pipe (2) to the hose-end fitting (3) of the machine fixing them with the clamp (4).

PL/PV 10 ÷ 23 and PC 6 - 8
• Connect the 3/4” G water supply pipe (5) to the electromagnetic valve (6) placing the gasket (7) in the middle.

IMPORTANT
After having carried out the water supply fitting open the water supply tap and check that there is no water loss.



7.6 ELECTRICAL CONNECTION

• The power feed line should be provided with a suitable omnipolar DISCONNECTING SWITCH
(automatic thermomagnetic switch or differential) placed before the control unit main switch, with
a minimum contact opening of 3 mm.

• The earthing system should comply with the local electric regulations in force.
• The electric power cables should comply with the maximum current required by the machine, so
that the total voltage drop at full charge will be less than 2%.

• The specifications of the electric power line should correspond to the specifications of the identification plate and to those mentioned in the technical specifications table that can be consulted in the first part of this booklet.

Before connecting the machine with the electric line, make sure that the DISCONNECTING SWITCH is disconnected (line not energized), therefore:

• Connect the power cable of the machine with the disconnecting switch placed above.

Control of a correct electrical connection

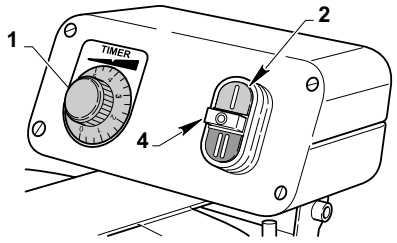
For the connection 230/400 V three phase, it is necessary to check if the engine rotation is right, to do this proceed as follows:

• Put main switch above the machine on “ON”.
• Set the timer (1) on a time of 10 ÷ 15 seconds.
• Push the (2) button taking it to and check, by means of the upper lid and check that the peeling disc rotates in the direction of the arrow (3) then stop the machine by pushing the button (4) taking it to 0

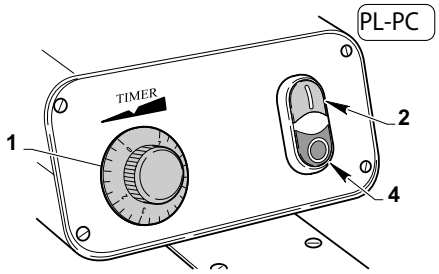
If the rotation direction is contrary to the arrow direction, proceed as follows:

DANGER
Before making any change in the electrical connection, make sure that the DISCONNECTING
SWITCH is disconnected (line not energized),then:reverse two of the three phase wires on the main
switch and check again the correct rotation.

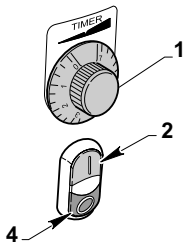
PV

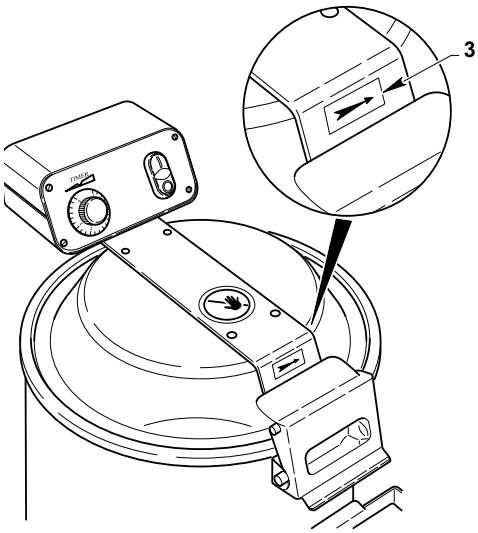


PL-PC



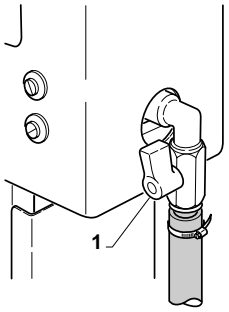
PL6/PC3





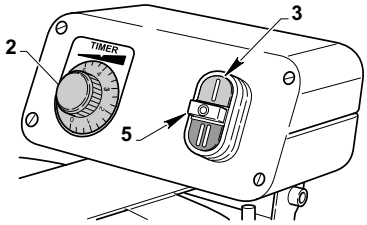
7.7 FIRST START

• Set the main switch upstream of the machine to “ON”, open the water supply; for model PL 6 open the tap (1).

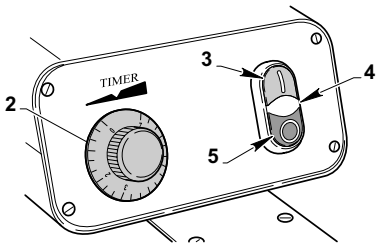


• Set the timer (2).

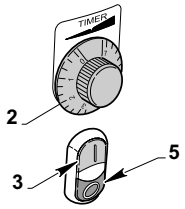
• Press push button (3) , [in PL and PC models: the light (4) will switch on]



• Start the empty machine and let it run for some minutes checking that rotation is smooth and without obstructions, check also that water flows and that discharge is correct



• Stop the machine by pressing the button (5) 0 , [in PL and PC models only the light (4) will now switch off].



8. Troubleshooting

The machine doesn’t start:

- check the electric connection.
- make sure that no foreign bodies are inside the machine and stop the rotation.
- check that both the food unloading door and the upper lid are correctly closed.

High percentage of waste and discard in potato cleaning :

- caused by deformed or unevenly sized potatoes

Disc for mussels and similar seafood; high percentage of discharge:

• caused by excessively soft shells
• amount of produced load is too high or too low.

Too little or too much water (except for Model PL6/PC3):

- check that the electro-magnetic valve filter is not clogged.

TECHNICAL INFORMATION

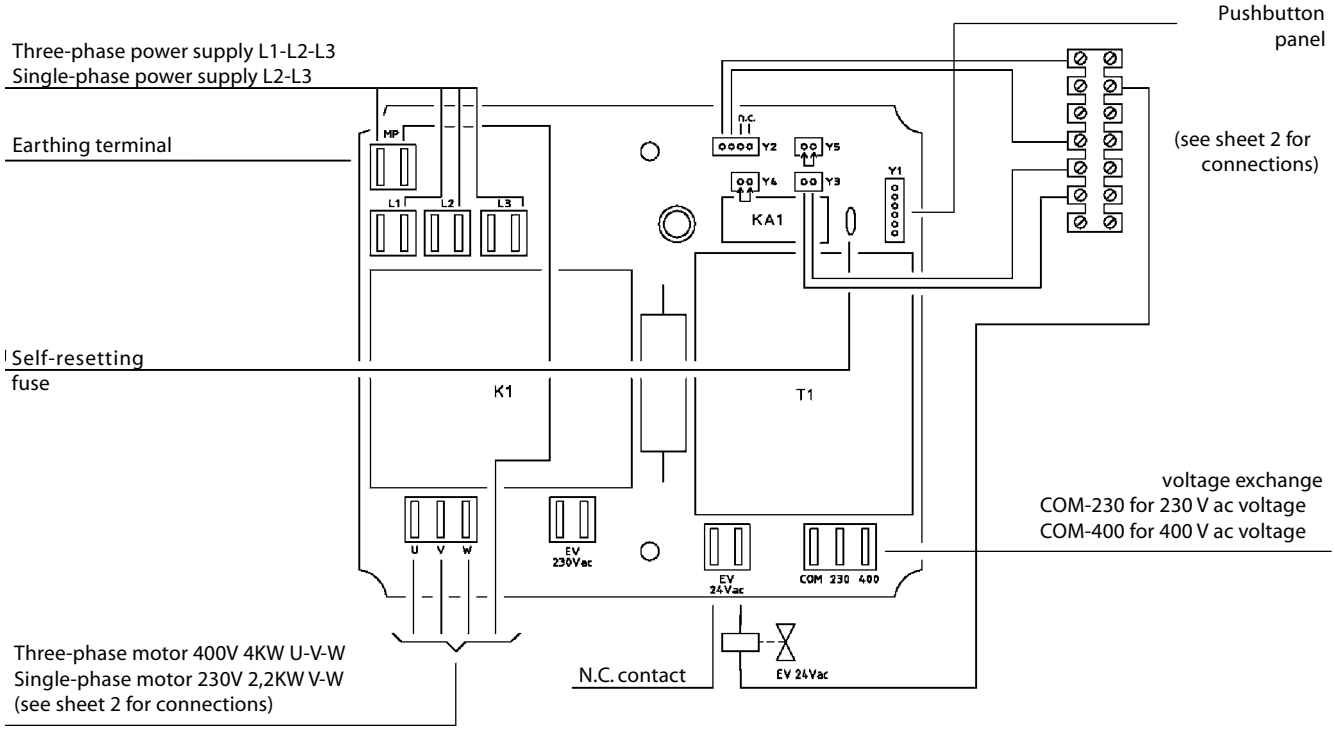
Wiring diagrams

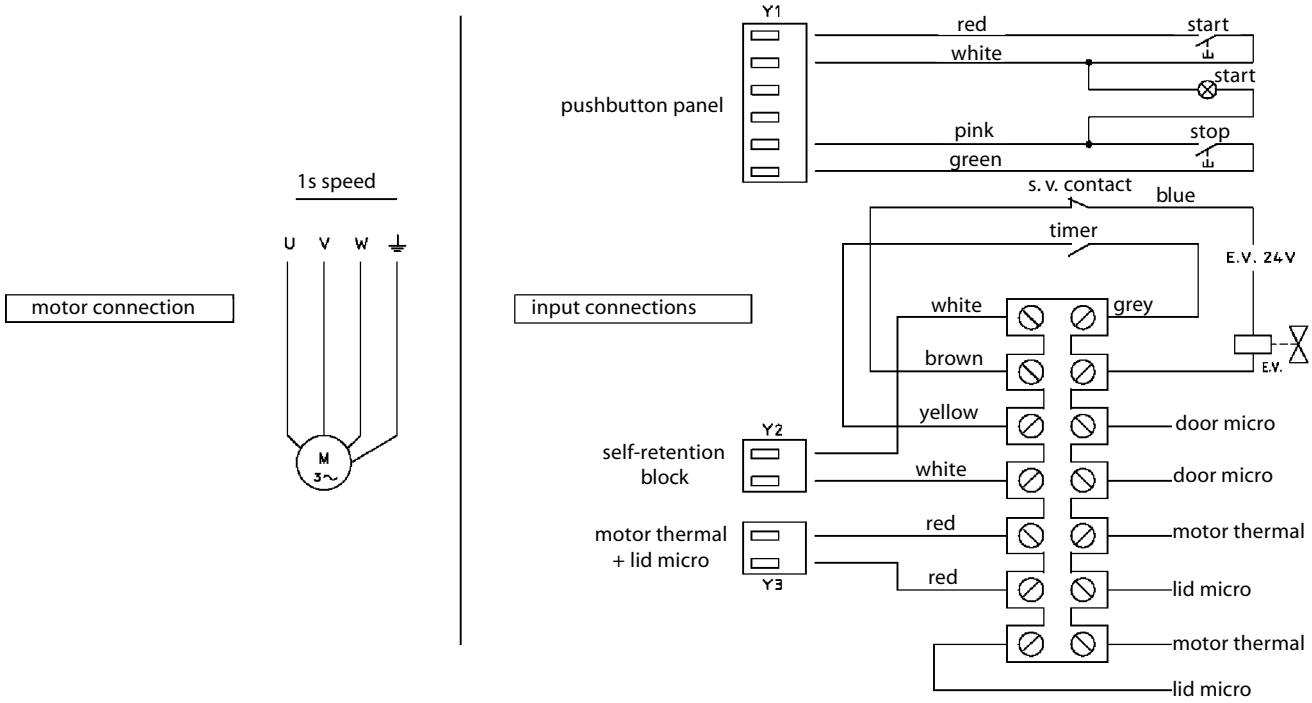
PC-PL

PV

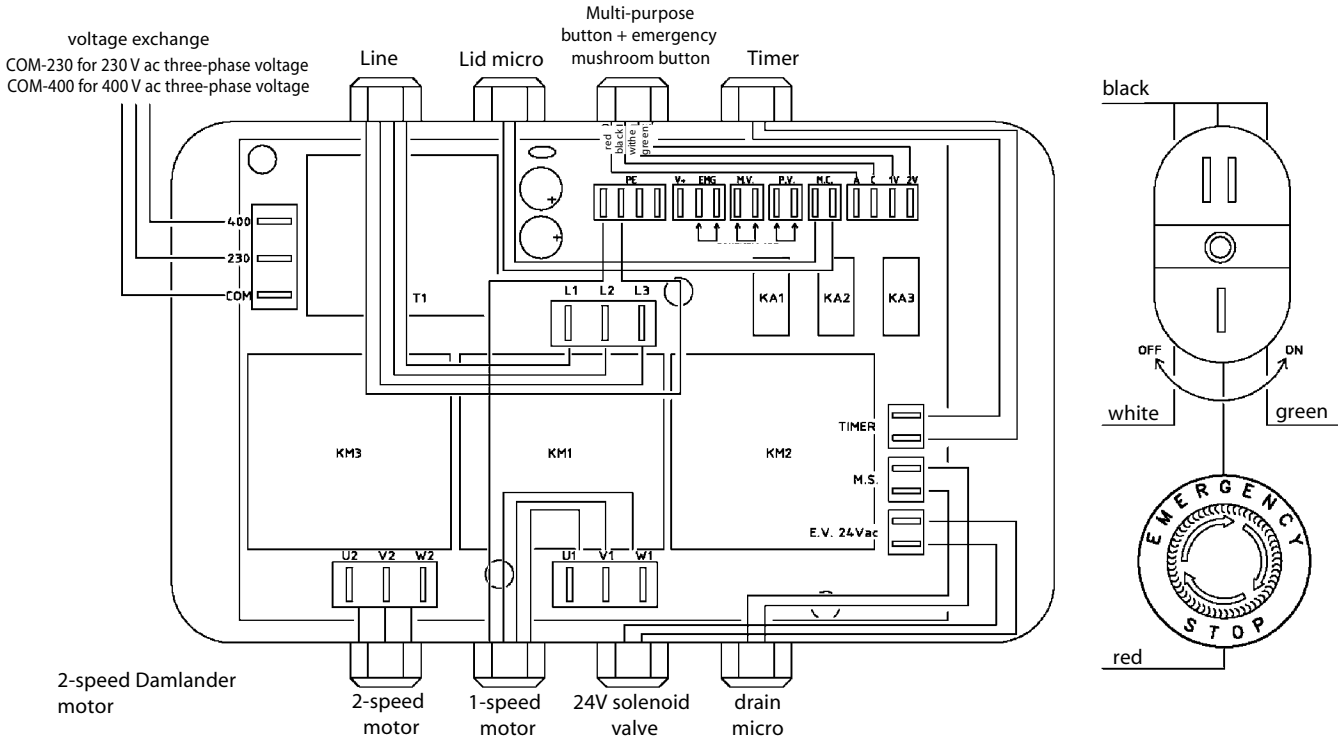
Installation drawing

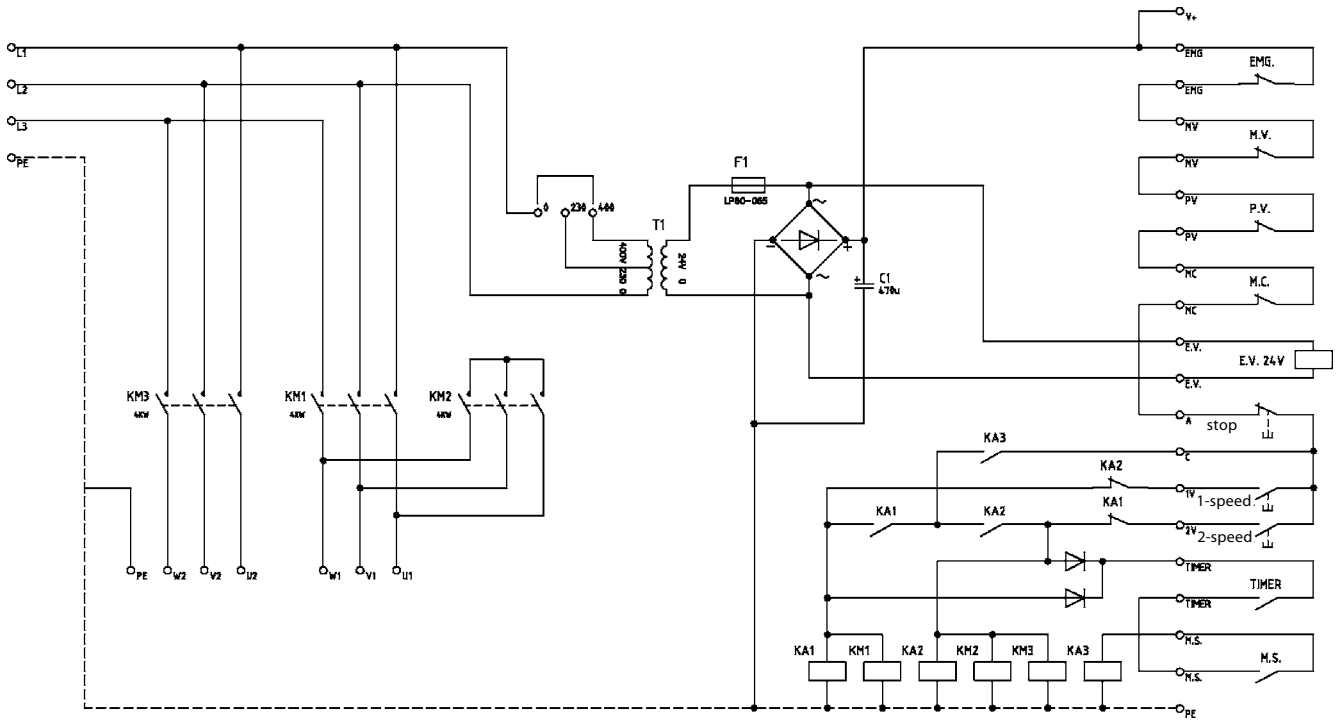
Technical Specifications



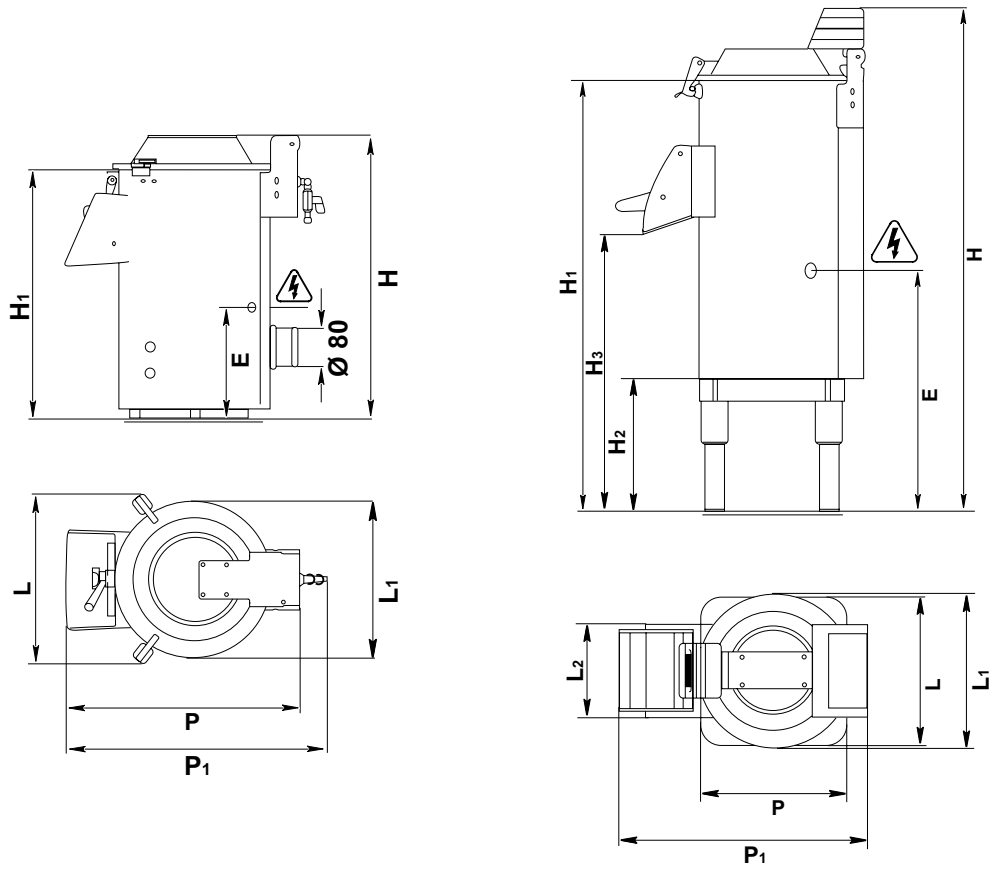


Wiring digram PC-PL Models





Wiring diagram PV Mod.



	H	H_1	H_2	H_3	E	L	L_1	L_2	P	P_1
PV10	1085	925	275	-	500	320	333	200	320	555
PV15	1105	945	275	625	540	400	415	260	400	665
PV23	1175	1015	275	625	540	400	415	260	400	665
PV32	1175	1015	275	625	540	500	516	260	500	780
PL6	630	555	-	-	230	350	333	-	490	535
PL10	1085	925	275	-	500	320	333	200	320	555
PL15	1105	945	275	625	540	400	415	260	400	665
PL23	1175	1015	275	625	540	400	415	260	400	665
PL32	1175	1015	275	625	540	500	516	260	500	780
PC3	630	555	-	-	230	350	333	-	490	535
PC6	1085	925	275	-	500	320	333	200	320	555
PC8	1105	945	275	625	540	400	415	260	400	665

Installation drawing

	MOD.	LOAD CAPACITY Kg	OUTPUT Kg/h	N. OF SPEED/rpm NO./rpm	RATING VOLTAGE Volts/Hz/~	MAX. POWER KW	WATER CONNECTION	DRAINING PIPE ø mm	NET WEIGHT Kg
PV UNIVERSAL PEELERS	**PV/10**	10	250*	2/220-240	230/50/3 400/50/3	0,22 - 0,3	3/4 GAS	80	39
	PV/15	15	350*	2/175-350	230/50/3 400/50/3	0,6 - 0,75	3/4 GAS	80	50
	PV/23	23	450*	2/175-350	230/50/3 400/50/3	0,6 - 0,75	3/4 GAS	80	51
	PV/32	32	650*	2/125-250	230/50/3 400/50/3	1,02 - 1,28	3/4 GAS	120	68
PL POTATOES - CARROTS PEELERS	**PL/6**	6	120*	1/420	230/50/1 230/50-60/3 400/50-60/3	0,37	ø 12	80	29
	PL/10	10	250*	1/420	230/50/1 230/50-60/3 400/50-60/3	0,37	3/4 GAS	80	36
	PL/15	15	350*	1/350	230/50/1 230/50-60/3 400/50-60/3	0,75	3/4 GAS	80	48
	PL/23	23	450*	1/350	230/50/1 230/50-60/3 400/50-60/3	0,75	3/4 GAS	80	49
	PL/32	32	650*	1/250	230/50/1 230/50-60/3 400/50-60/3	1,1	3/4 GAS	120	66
PC SHELLFISH CLEANING MACHINES	**PC/3**	2 ÷ 3	45**	1/200	230/50/1 230/50-60/3 400/50-60/3	0,25 0,225 0,225	3/4 GAS	80	30
	PC/6	4 ÷ 6	60**	1/200	230/50/1 230/50-60/3 400/50-60/3	0,25 0,225 0,225	3/4 GAS	80	39
	PC/8	8 ÷ 10	150**	1/160	230/50/1 230/50-60/3 400/50-60/3	0,33 0,45 0,45	3/4 GAS	80	52

* = POTATOES
** = CARROTS

WATER CONSUMPTION = 14 l/min